

ABSTTRACT

A low-profile, high power ball grid array, or land
grid array, device including a plastic tape having first
5 and second surfaces, a portion of the first surface covered
with an adhesive layer. First and second openings are
stamped through the tape and adhesive layer, the first
openings configured for solder balls and the second
openings configured to accommodate circuit chips. A copper
10 foil is laminated on the adhesive layer, and the portion of
this copper foil in the second openings is mechanically
shaped into a position coplanar with the second surface,
whereby it becomes useable as a chip mount pad, exposed
after encapsulation for low resistance heat dissipation.
15 The circuit chips are mounted by means of a thermally
conductive material on each of the chip mount pads.
Encapsulating material surrounds the mounted chips in low
profile. For ball grid array devices, solder balls are
attached to the copper foil exposed by the first openings
20 in the tape.